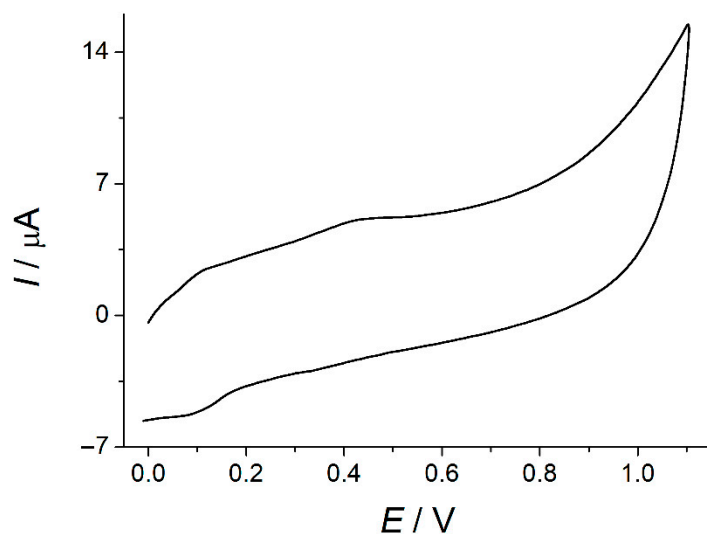
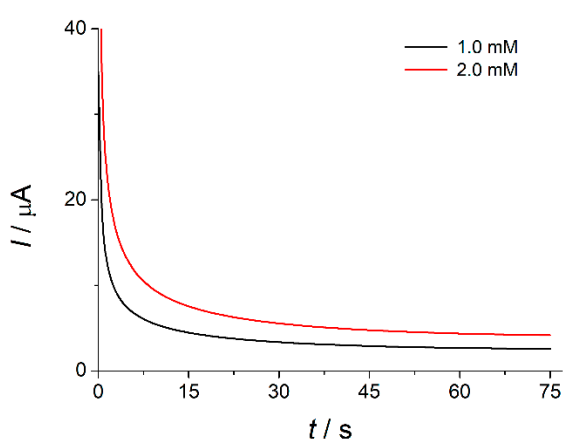


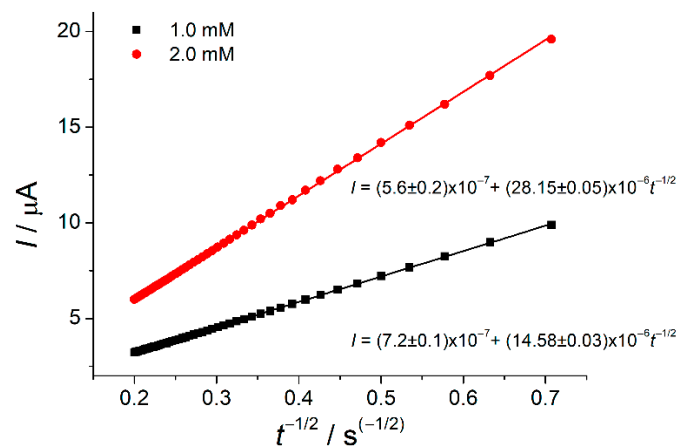
## Supplementary Material



**Figure S1.** Cyclic voltammogram of poly(4-ABA)/MWCNTs/GCE in phosphate buffer pH 7.0. Potential scan rate is  $100 \text{ mV s}^{-1}$ .

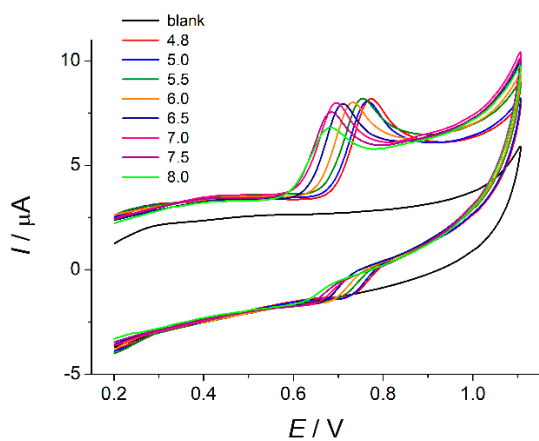


(a)

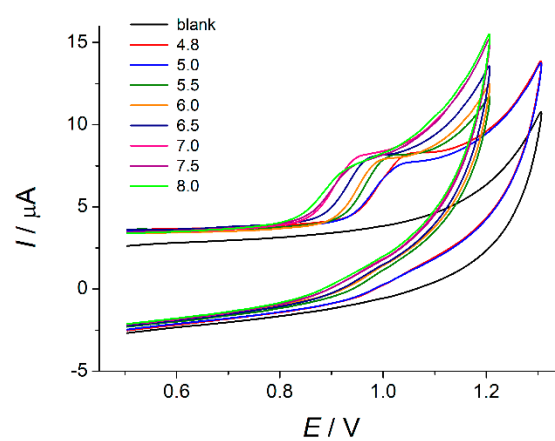


(b)

**Figure S2.** (a) Chronoamperometric curves of hexacyanoferrate(II) ions in 0.1 M KCl at the bare GCE at 0.45 V; (b) Plot of  $I$  vs.  $t^{-1/2}$  on the basis of chronoamperometric data.

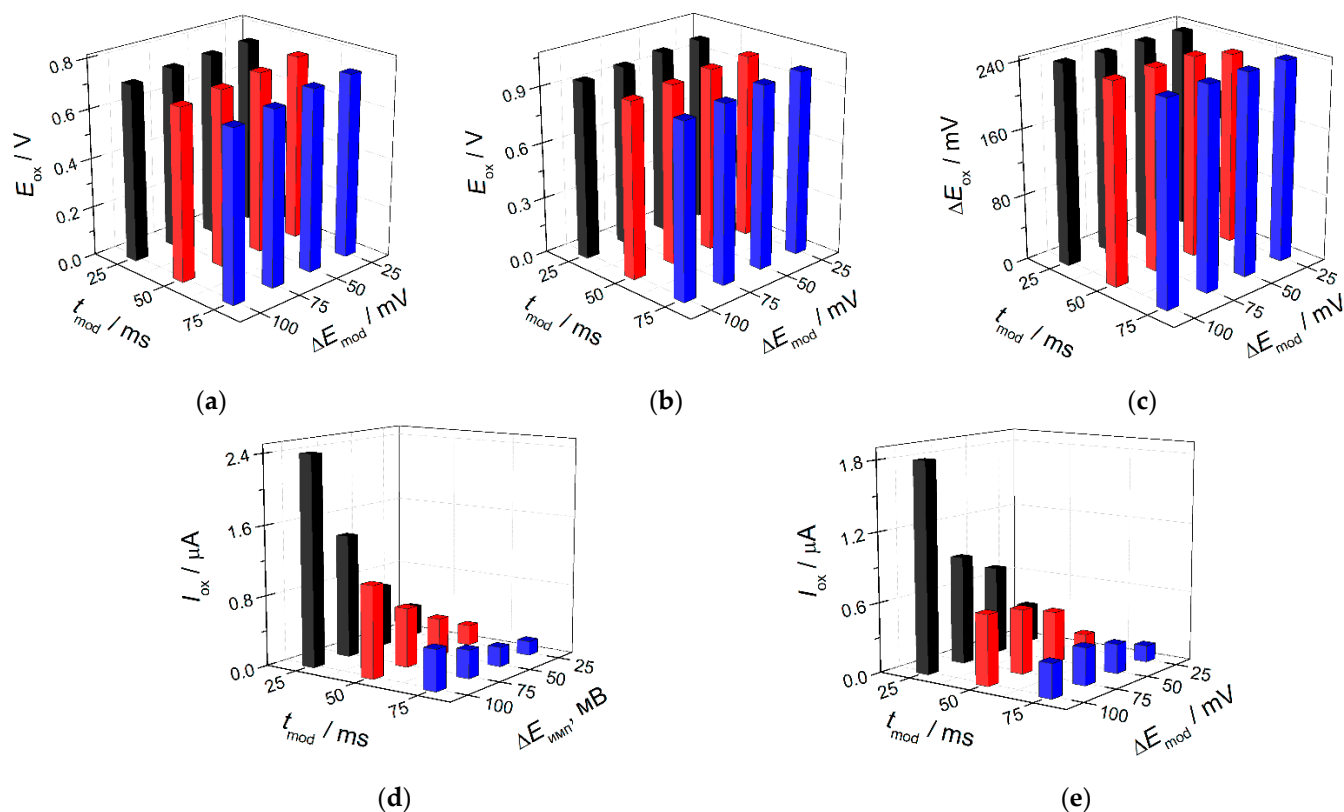


(a)

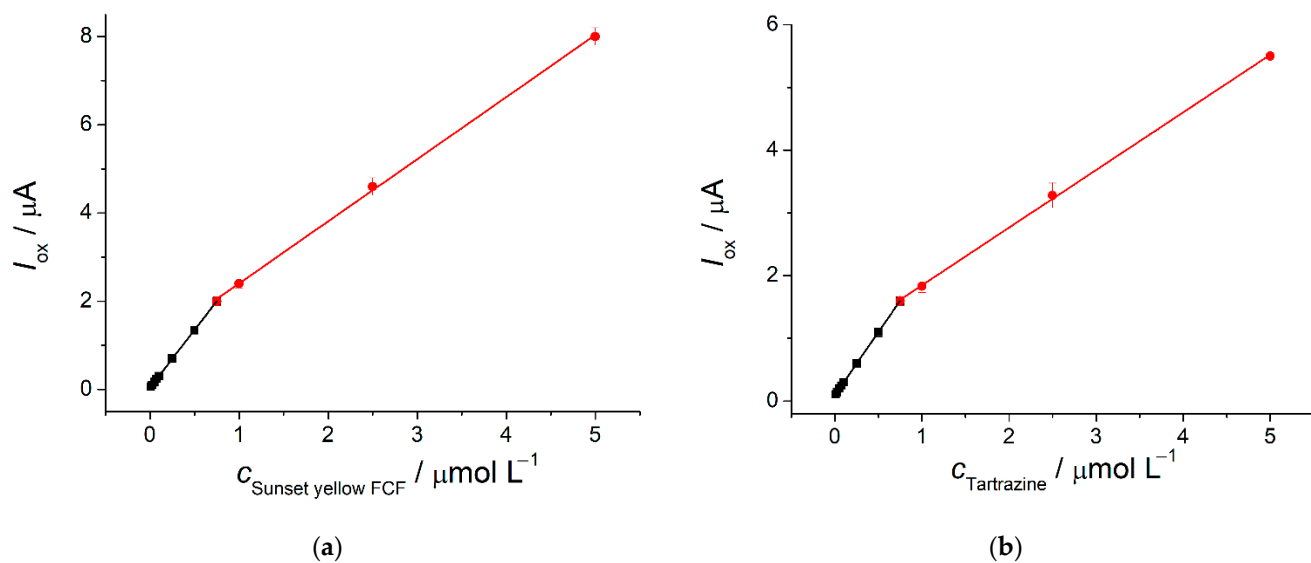


(b)

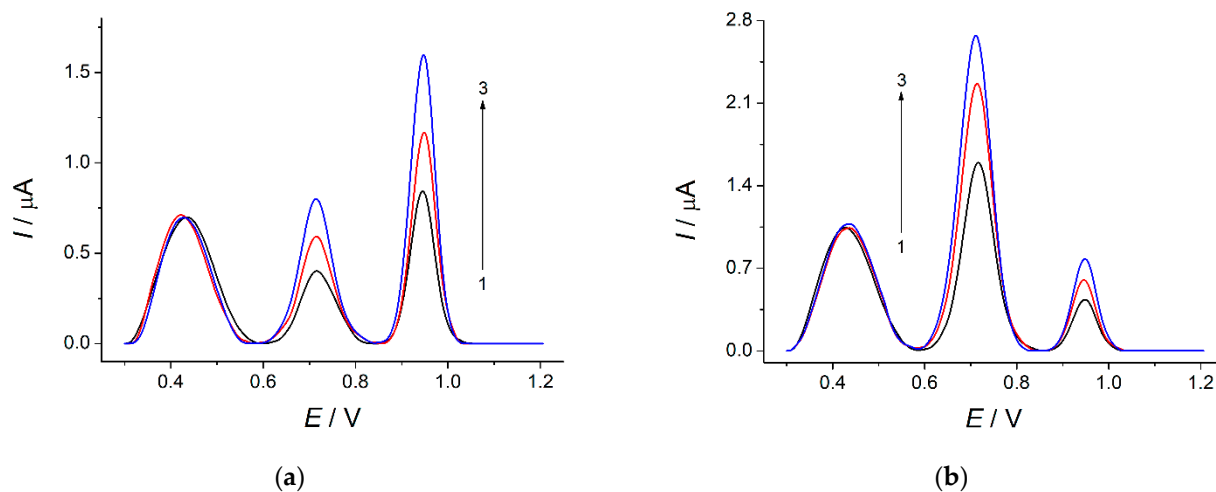
**Figure S3.** Cyclic voltammograms of 100  $\mu\text{mol L}^{-1}$  of azo dyes at the poly(4-ABA)/MWCNTs/GCE in phosphate buffer of various pH: (a) sunset yellow FCF; (b) tartrazine. Potential scan rate is 100  $\text{mV s}^{-1}$ .



**Figure S4.** Effect of modulation amplitude and time on the voltammetric characteristics of 1.0  $\mu\text{mol L}^{-1}$  mixture of azo dyes at the poly(4-ABA)/MWCNTs/GCE in phosphate buffer pH 4.8: (a) changes in the oxidation potential of sunset yellow FCF; (b) changes in the oxidation potential of tartrazine; (c) changes in the peak potential separation of dyes; (d) changes in the oxidation currents of sunset yellow FCF; (e) changes in the oxidation currents of tartrazine.



**Figure S5.** Calibration plots of azo dyes at the poly(4-ABA)/MWCNTs/GCE in phosphate buffer pH 4.8: (a) Sunset yellow FCF; (b) Tartrazine.



**Figure S6.** Baseline-corrected differential pulse voltammograms of 50  $\mu\text{L}$  of orange-flavoured drinks at the poly(4-ABA)/MWCNTs/GCE in phosphate buffer pH 4.8: **(a)** Sample 1 (curve 1), sample 1 + 0.072  $\mu\text{mol L}^{-1}$  of sunset yellow FCF and 0.185  $\mu\text{mol L}^{-1}$  of tartrazine (curve 2), sample 1 + 0.144  $\mu\text{mol L}^{-1}$  of sunset yellow FCF and 0.37  $\mu\text{mol L}^{-1}$  of tartrazine (curve 3); **(b)** Sample 2 (curve 1), sample 2 + 0.30  $\mu\text{mol L}^{-1}$  of sunset yellow FCF and 0.085  $\mu\text{mol L}^{-1}$  of tartrazine (curve 2), sample 2 + 0.60  $\mu\text{mol L}^{-1}$  of sunset yellow FCF and 0.17  $\mu\text{mol L}^{-1}$  of tartrazine (curve 3). Modulation amplitude is 100 mV, modulation time is 25 ms, potential scan rate is 20  $\text{mV s}^{-1}$ .